(A) IDENTIFICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s):	A. NAKADA	CONF NO:	1276
SERIAL NO.:	09/832,488	ART UNIT:	2145
FILING DATE:	04/11/2001	EXAMINER:	BHATIA, AJAY M
TITLE:	MESSAGE HANDLING METHOD, FOR MOBILE AGENT IN A DISTRIBUTED COMPUTER ENVIRONMENT		
ATTORNEY DOCKET NO.:	954-007861-US (DO1)		

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Board of Patent Appeals and Interferences
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APPELLANT'S BRIEF
(37 C.F.R. §41.37)

This is an appeal from the final rejection of the claims in the above-identified application.

A Notice of Appeal was mailed on February 15, 2007

(B) TABLE OF CONTENTS

(C) REAL PARTY IN INTEREST

The real party in interest in this Appeal is:

International Business Machines Corporation

(D) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences regarding this application.

(E) STATUS OF CLAIMS

Claims 1-6, 8-17 and 19-21 have been cancelled

Claims 7 and 18 have been finally rejected.

The claims on appeal are 7 and 18.

(F) STATUS OF AMENDMENTS

An amendment was filed under 37 C.F.R. 1.116. In an Advisory Action dated January 30, 2007 box "76" was checked indicating that this amendment will be entered upon appeal. This was confirmed in a telephone interview on February 14, 2007 with Examiner Bhata.

(G) SUMMARY OF CLAIMED SUBJECT MATTER

In brief, the claimed invention is a messaging processing method and a computer program product having a computer usable program code for execution by a message processor. A message processor of a <u>mobile</u> agent is provided with a plurality of conversation threads. The message processor also has a conversation part object which includes a conversation thread control part <u>capable of controlling the plurality of conversation threads.</u> The threads are halted and the conversation part object is sent through a network to another place in the message processor. Then the plurality of conversation threads at the other message processor are resumed.

In this manner, an intelligent message system is constructed which allows a series of data packets, having a certain context, to be exchanged with the flow of contexts being followed. Other advantages are allowing the use of an agent communication language which is readily understandable to a human being, which can flexibly proceed at higher speed concurrently and asynchronously without a knowledge of many languages and protocols and with a low network loading. Still further, developing and maintaining time of a program is reduced.

The appealed claims are:

7.   A message processing method for execution by a message processor, the method comprising:

providing, in the message processor of a mobile agent (Fig. 1, 125, 135, 141, 145, 151, 161; p. 19, l. 27 to p. 20, l. 3), a plurality of conversation threads and a conversation part object including a conversation thread control part (Fig. 3, 205; p. 23, ll. 5-6) that is capable of controlling the plurality of conversation threads (p. 9, ll. 1-6);

halting the plurality of conversation threads (Fig 14, 501; p. 9, ll. 8-9);

sending the conversation part object through a network (Fig. 1, 150; p. 19, l. 25) from the message processor to another place in another message processor (Fig. 14, 507; p. 9, ll. 11-12); and resuming the plurality of conversation threads at the another message processor (Fig. 14, 507; p. 9, ll. 11-12)

18. A computer program product comprising a computer usable medium having computer usable program code for execution by a message processor of a mobile agent (Fig. 1, 125, 135, 141, 145, 151, 161; p. 19, l. 27 to p. 20, l. 3) which is capable of sending a message to another message processor through a network (Fig. 1, 150; p. 15, ll. 10-14) said computer program product comprising:

a computer usable program code which instructs said message processor to halt a plurality of conversation threads; (Fig. 14, 501; p. 15, ll. 15-17).

a computer usable program code which instructs said message processor to send a conversation part object which includes said plurality of conversation threads to another place in another message processor through said network, (Fig. 14, 503, 505; p. 15, ll. 17-19) said plurality of conversation threads including a conversation thread control part (Fig. 3, 205) that is capable of controlling the plurality of conversation threads; and

a computer usable program code which instructs said other message processor to resume said plurality of conversation threads. (Fig. 14, 507; p. 15, ll. 19-21).

(H) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 7 and 18 are unpatentable under 35 U.S.C. 102(e) as being anticipated by Sudo (USPN 5,692,192)

2. Whether claims 7 and 18 are unpatentable under 35 U.S.C. 102(e) as being anticipated by Bhanot (USPN 5,796,934)

(I) ARGUMENT

1. Rejection of claims 7 and 18 under 35 USC 102 as being anticipated by Sudo

Sudo discloses a load distribution method and system wherein load information is collected about a plurality of information processing apparatuses.

The degree of distribution of a distributed task in operation is controlled in accordance with the collected load information. Hence a heavily loaded information processing apparatus expands a distributed task operating therein to a lightly loaded information processing apparatus and compresses a distributed task expanded to the lightly loaded information processing apparatus to the lightly loaded information processing apparatus.

Thus, the lightly loaded information processing apparatus expands the distributed task operating in the heavily loaded information processing apparatus to the lightly loaded information processing apparatus. It also compresses a distributed task expanded to the heavily loaded information processing apparatus from the lightly loaded information processing apparatus to the lightly loaded information processing apparatus.

The threads operating in the heavily loaded information processing apparatus are transferred within distributed task to the lightly loaded information processing apparatus.

It is noted that at the top of Page 2 of the last Office Action, in the "Response to Arguments" section, the Examiner states that applicant has not supplied a special definition of a "mobile agent". However, "mobile agent" is defined on page 34, lines 24-26, as one that moves around and holds conversations. In general, a mobile agent is a

process software module capable of moving around a network to where it is needed. Thus, it differs from a resident agent (see p. 3, 1.27, and p. 6, 1.1), which cannot so move. It is also submitted that, contrary to the Examiner's assertion, paragraph 71 (page 20, lines 4 and 5) state that the application 113, e.g., "mobile agent" is defined in a client system 101.

However this merely means that the exact details, e.g., steps of a program, of a mobile agent is defined in a client system, not that the general definition of a mobile agent, which is known in the art, is defined in client system 101.

The Examiner has cited col. 7, line 61, to col. 8, line 11, for the disclosure of a mobile agent. However, it is submitted that there is absolutely no such disclosure therein or in any other portion of Sudo.

Further, claim 7 recites "… a conversation part object including a conversation thread control part that is capable of controlling the <u>plurality</u> of conversation threads". Similarly, claim 18 recites the same limitation. This limitation is disclosed on page 23, lines 5-10; page 27, line 24, to page 28, line 2; page 28, lines 10-16; page 30, lines 10-17. The Examiner has cited user level control threads in Sudo. However, there is no disclosure of these threads controlling a <u>plurality</u> of threads as presently recited.

It is well known that in order for a rejection under 35 U.S.C. 102 to be proper, each element of the claim must be found in a single reference; see <u>Kalman v. Kimberly Clark Corp.</u>, 218 U.S.P.Q. 781, 789 (CAFC 1983). Here, since neither the recited plurality of conversation threads, nor the mobile agent, is disclosed in Sudo, the rejection of claims 7 and 18 under 35 U.S.C. 102 as being anticipated by Sudo should be reversed.

2. Rejection of claims 7 and 18 under 35 U.S.C. 102 as being anticipated by Bhanot.

Bhanot discloses a fault tolerant computer system, which has a client computer for running an application. A first server is coupled to the client for accepting transactions generated by the client application so that the transactions are processed according to database management system (DBMS) instructions. A first memory stores connection information corresponding to a second server so that if the first server becomes disabled, a connection from the client to the second server is automatically established by the client and transactions from the client are handled by the second server.

A second memory stores information pertaining to transactions pending on the first server so that the information is stored by a log writing process for completing the pending transactions without user intervention when the first server becomes disabled. A client interface is coupled to the second memory, which submits pending transaction information to the second server for processing by the second server when the first server becomes disabled.

The Examiner in the penultimate paragraph on page 3 of the Final Rejection refers to col. 2, lines 38-61, and col. 3, lines 54–66, of Bhanot as disclosing a mobile agent and a conversation thread part that is capable of controlling the plurality of conversation threads.

It is respectfully submitted that the cited column 2, lines 38-61, and column 3, lines 54-66, totally fail to disclose the recited <u>control conversation part</u>. They merely disclose backing up a system. Furthermore, Bhanot also completely fails to disclose the recited <u>mobile</u> agent. Thus, the rejection of claims 7 and 18 under 35 U.S.C. as being anticipated by Bhanot should be reversed for both of the above reasons.

Furthermore, it is noted that Sudo is for the problem of load distribution in a distributed processing system (see col. 3, lines 32-36, 55-60). Bhanot is for the problems of a fault tolerant client/server system with transparent to the end user failures and preserving and finishing in-flight transactions (see col. 2, lines 29-32). These problems are totally different from the problems solved by the presently claimed invention (exchanging data packets with the flow being followed, human understandable language which can flexibly proceed at high speed, low developing and maintaining time, etc.). Thus it would not be obvious to modify Sudo or Bhanot to have a mobile agent or a control thread part capable of controlling a plurality of conversation threads (see MPEP 2143.01).

For all of the above reasons, a reversal of the final rejection of claims 7 and 18 by this Honorable Board is requested.

The Commissioner is hereby authorized to charge payment of $500.00 for the Appeal Brief Fee as well as for any other fees associated with this communication or credit any over payment to Deposit Account No. 50-0510.

Respectfully submitted,

Henry I. Steckler   *March 23, 2007*

Henry I. Steckler
Reg. No.: 24,139   Date

Perman & Green, LLP   Telephone:(203) 259-1800
425 Post Road   Facsimile:(203) 255-5170
Fairfield, CT 06430

CERTIFICATE OF E-MAIL

I hereby certify that this correspondence is being e-mailed on the date indicated below in an envelope addressed to the Mail Stop Appeal Brief-Patents, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

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Person Making Deposit

(J) CLAIM APPENDIX

The texts of the claims involved in the appeal are:

7.   A message processing method for execution by a message processor, the method comprising:

providing, in the message processor of a mobile agent, a plurality of conversation threads and a conversation part object including a conversation thread control part that is capable of controlling the plurality of conversation threads;

halting the plurality of conversation threads;

sending the conversation part object through a network from the message processor to another place in another message processor; and

resuming the plurality of conversation threads at the another message processor.

18.   A computer program product comprising a computer usable medium having computer usable program code for execution by a message processor of a mobile agent which is capable of sending a message to another message processor through a network, said computer program product comprising:

a computer usable program code which instructs said message processor to halt a plurality of conversation threads;

a computer usable program code which instructs said message processor to send a conversation part object which includes said plurality of conversation threads to another place in another message processor through said network, said plurality of conversation threads including a conversation thread control part that is capable of controlling the plurality of conversation threads; and

a computer usable program code which instructs said other message processor to resume said plurality of conversation threads.

(K) EVIDENCE APPENDIX

(Not Applicable)

(L) RELATED PROCEEDINGS APPENDIX

(Not Applicable)